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DECISION OF THE INTELLECTUAL PROPERTY OFFICE

(TRANSLATION)

Issuance Date: 11 February 2004

1. Application No.: 091102666

International Classification Seventh Edition: H01L 21/205

2. Title: ARRANGEMENT AND A METHOD FOR REDUCING
CONTAMINATION WITH PARTICLES ON A SUBSTRATE IN A
PROCESS TOOL

3. Applicant: 1. Infineon Technologies AG
2. Infineon Technologies SC 300 GmbH & Co. KG
3. Motorola Inc.

Address: 1. Germany
2. Germany
3. U.S.A.

4. Attorney: C. V. Chen

Address: 7th Floor, No. 201, Tun Hua North Road, Taipei

5. Filing Date: 18 February 2002

6. Priority Claim: none

7. Examiner: Ben-Li Huang

8. Contents of Decision:

SUBJECT: The subject matter shall not be granted a patent.

BASIS: Paragraph 2 of Article 20 of the Patent Law.

REASONS:

(1) The subject invention, entitled "ARRANGEMENT AND A METHOD FOR REDUCING CONTAMINATION WITH PARTICLES ON A SUBSTRATE

IN A PROCESS TOOL," mainly provides a technical feature that comprises at least three arms and an adjustable rinse nozzle, in which the rinse nozzle dispenses a solvent liquid to remove contaminating particles assembling on a surface of a wafer, and the set of arms rotates for a homogeneous cleaning.

- (2) It is found that TW Patent Publication No. 408368 (the Citation), entitled "DEVELOPMENT SYSTEM FOR MANUFACTURING SEMICONDUCTOR DEVICES AND CONTROLLING METHOD THEREOF" and published on 11 October 2000, has already disclosed that the development system comprises a wafer transfer apparatus for moving by adsorbing the back side of the wafer and a rinse supply means for supplying rinse into the container, wherein the wafer transfer apparatus comprises a spin chuck having therein a vacuum passage in order to vacuum-adsorb and rotate the wafer, then the rinse supply means may spray the rinse onto the wafer to obtain the effect of cleaning the wafer surface. In contrast to the Citation, the subject invention utilizes a set of arms and an adjustable rinse nozzle for spraying the solvent liquid. However, the rinse supply means and the spin chuck for vacuuming a wafer of the Citation can also achieve the equivalent effects. The change of the constituent elements relates to the use of conventional technology in the field of cleaning wafer, and can be accomplished easily by persons skilled in the art, thus the present invention does not have an inventive step.
- (3) To sum up, the present invention utilizes conventional technology or knowledge known prior to applying for patent, can be derived easily by persons skilled in the art, and thus does not comply with the requirements for a patent.

In view of the above, the application does not conform to the provisions of Paragraph 2 of Article 20 of the Patent Law and patent rights are not granted thereto.

Sealed By

Tsai, Lien-Sheng
Commissioner

Note: If dissatisfied with the decision, the applicant may file a request for re-examination within 30 days following the date of receipt of this decision and pay a government fee of NT\$6,000 (as for the application whose total pages of the specification and the drawings exceed 50 pages, a fee of NT\$500 should be added for every 50 pages, and less than 50 pages count as 50 pages).

經濟部智慧財產局專利核駁審定書

受文者：億恒科技公司、億恆科技SC300公

司、摩托羅拉公司（代理人：陳長文先生）

地址：臺北市松山區敦化北路二〇一號七樓

發文日期：中華民國九十三年二月十一日

發文字號：（九三）智專二（一）02088字

第〇九三二〇一二五九〇〇號

一、申請案號數：〇九一一〇二六六六

專利分類IPC(7)：H01L 21/205

二、發明名稱：減少在製程工具中之基板上的粒子污染之配置及方法

三、申請人：

名稱：億恒科技公司

地址：德國

名稱：億恆科技SC300公司

地址：德國

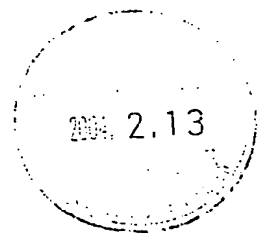
名稱：摩托羅拉公司

地址：美國

四、專利代理人：

姓名：陳長文先生

3. 6.
11 9



地址：臺北市松山區敦化北路二〇一號七樓

五、申請日期：九十一年二月十八日

六、優先權項目：

七、審查人員姓名：黃本立 委員

八、審定內容：

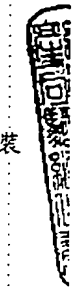
主文：本案應不予專利。

依據：專利法第二十條第二項。

理由：

(一) 本案「減少在製程工具中之基板上粒子污染之配置及方法」主要技術特徵包括至少三支支撐臂以及一可調整的洗滌噴嘴藉由洗滌噴嘴噴散溶劑清洗晶圓表面污染粒子，支撐臂藉由旋轉使晶圓可達到均勻清潔的效果。

(二) 經查民國八十九年十月十一日公告之中華民國專利公告編號第408368號案「用以製造半導體元件之顯影系統及其控制方法」(引證附件)，該引證案已揭示該顯影系統包括有吸附晶圓背面裝置、裝卸該晶圓之運送裝置以及用以供給清洗劑進入該容器中的清洗劑供應裝置，其中該晶圓運送裝置包括旋轉夾頭，可接由該夾頭中真空通道吸附晶圓並予以旋轉，然該清洗劑供應裝置可經由噴灑管嘴將清洗劑噴晶圓上，使之達到清潔晶圓表面之效果。相較引證案，本案係藉由支撐臂及可調整洗滌噴嘴來噴散溶



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劑，而引證案中清洗劑供應裝置及吸附晶圓旋轉夾頭亦可達成等同目的，此種將結構元件予以置換，係為清洗晶圓習知技術運用，為熟習該項技術者所能輕易完成者，故不具進步性。

(三) 綜上所述，本案係運用申請前既有技術或知識，而為熟習該項技術者所能輕易完成者，難謂符合發明專利要件。

據上論結，本案不符法定專利要件，爰依專利法第二十條第二項，審定如主文。

局長
蔡練生

依照分層負責規定授權單位主管決行

如不服本審定，得於文到之次日起三十日內，備具再審查理由書一式二份及規費新台幣陸仟元整（專利說明書及圖式合計在五十頁以上者，每五十頁加收新台幣五百元，其不足五十頁者以五十頁計），向本局申請再審查。



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SERIAL NO: 10/643,820
APPLICANT: Hiatt et al.
LERNER AND GREENBERG P.A.
P.O. BOX 2480
HOLLYWOOD, FLORIDA 33022
TEL. (954) 925-1100